CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- Before this Amendment: Claims 1-17 and 20-52.
- After this Amendment: Claims 1-16, 20-52, 58, and 59

Non-Elected, Canceled, or Withdrawn claims: 17-19 and 53-57

Amended claims: 1, 9, 16, 29, 37, 41, and 46

New claims: 58 and 59

Claims:

1. **(Currently Amended)** A system comprising:

a source database storing a plurality of highly compressed content pieces, wherein highly compressed content pieces are versions of portions of content that are created in a manner so that the highly compressed ~~form~~ content pieces cannot be decompressed into an intelligible form ~~yet~~ and the highly compressed content pieces can be compared to uncompressed content for equality, the uncompressed content having undergone conversion comprising conversion between digital and analog; and

a content player, coupled to the source database, the content player ~~including,~~ comprising:

an interface configured to receive a subset of the plurality of highly compressed content pieces from the source database[[,]];

a storage device configured to store the subset, wherein the number of pieces included in the subset ~~can vary~~ being based on the available memory in the storage device and the storage required for each piece[[,]];

a comparator configured to compare the subset to content and configured to determine whether the content matches any of the plurality of highly compressed content pieces in the subset[[,]];

a resolver configured to take particular action ~~in response to~~ responsive to the comparator indicating the content matches one of the plurality of highly compressed content pieces in the subset, the particular action comprising:

contacting a remote device to perform a more thorough analysis of whether the content matches any of the plurality of highly compressed content pieces[[,]]; and

notifying a publisher of the media content of the existence of pirated content; and

an output controller configured to render the content ~~if~~ in an event that the comparator indicates the content does not match any of the highly compressed content pieces in the subset.

2. (Original) A system as recited in claim 1, wherein the comparator is to compare the subset to content being played by the content player.

3. (Original) A system as recited in claim 1, wherein the content player is coupled to the source database via the Internet.

4. **(Original)** A system as recited in claim 1, wherein the plurality of highly compressed content pieces comprises a plurality of highly compressed audio pieces.

5. **(Original)** A system as recited in claim 1, wherein the plurality of highly compressed content pieces comprises a plurality of highly compressed video pieces.

6. **(Previously Presented)** A system as recited in claim 1, wherein the plurality of highly compressed content pieces comprises a plurality of highly compressed audio and video pieces.

7. **(Original)** A system as recited in claim 1, wherein the interface is further to subsequently communicate with the source database, retrieve a new subset of the plurality of highly compressed content pieces from the source database, and replace the subset in the storage device with the new subset.

8. **(Original)** A system as recited in claim 1, further comprising a content source coupled to the content player, and wherein the content player further comprises a compressor to receive content from the content source, generate a highly compressed content piece based on the received content, and add the generated highly compressed content piece to the subset in the storage device.

9. **(Currently Amended)** A system comprising:

a source database storing a plurality of highly compressed content pieces, wherein highly compressed content pieces are versions of portions of content that are created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality and the uncompressed content has undergone conversion comprising conversion between digital and analog; and

a content player, coupled to the source database, the content player including,

an interface to receive a subset of the plurality of highly compressed content pieces from the source database,

a storage device to store the subset, wherein the number of pieces included in the subset can vary based on the available memory in the storage device and the storage required for each piece,

a comparator to compare the subset to content and determine whether the content matches any of the plurality of highly compressed content pieces in the subset, and

a resolver to take particular action in response to the comparator indicating the content matches one of the plurality of highly compressed content pieces in the subset,

wherein the storage device is further to store a plurality of licenses identifying content that a user of the content player is authorized to playback, and wherein the particular action comprises the resolver checking whether one of the plurality of licenses corresponds to the content and contacting a remote device to perform a more thorough analysis of whether the content matches any of the plurality of highly compressed content pieces.

10. (Original) A system as recited in claim 9, wherein each of the plurality of highly compressed content pieces in the subset further indicates whether one of the plurality of licenses is required for playback of the content.

11. (Original) A system as recited in claim 1, wherein the storage device is further to store the content.

12. (Original) A system as recited in claim 1, further comprising a content source, coupled to the content player, from which the content is received.

13. (Original) A system as recited in claim 12, wherein the content player receives the content from the content source in its entirety before playback of the content begins.

14. (Original) A system as recited in claim 1, wherein the comparator is to determine whether the content matches any of the plurality of highly compressed content pieces in the subset by comparing a first set of feature values associated with each of the plurality of highly compressed content pieces with a second set of feature values associated with the content, and checking whether at least a threshold number of the first set of feature values is within threshold distance of the second set of feature values.

15. (Original) A system as recited in claim 14, wherein the first set of feature values and the second set of feature values each comprises a set of audio energy features.

16. (Currently Amended) A device comprising:

a memory to store one or more highly compressed content pieces, the content comprising audio content, wherein highly compressed content pieces are versions of portions of content that are created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality, and wherein the one or more highly compressed content pieces constitute a subset of the total number of highly compressed content pieces, and the number of pieces included in the subset can vary based on the available memory and the amount of memory required for each piece;

a comparator, coupled to the memory, to compare the one or more highly compressed content pieces to content being played by~~at~~ the device and to determine whether the content matches at least one of the one or more highly compressed content pieces; and

a resolver, coupled to the comparator, to take a particular action in response to the comparator indicating the content matches one of the plurality of highly compressed content pieces in the subset, wherein the particular action comprises checking to see whether the device has a valid license for the content and contacting a remote device to perform a more thorough analysis of whether the content matches any of the plurality of highly compressed content pieces.

17. (Canceled)

18. (Canceled).

19. (Canceled).

20. (Previously Presented) A device as recited in claim 16, wherein the memory is further to store the content.

21. (Previously Presented) A device as recited in claim 16, further comprising a playback controller, coupled to the memory, to receive the content from an external source.

22. (Previously Presented) A device as recited in claim 21, wherein the external source comprises a CD.

23. (Previously Presented) A device as recited in claim 16, further comprising an interface, coupled to the memory, to receive the one or more highly compressed content pieces from a compressed content source.

24. (Previously Presented) A device as recited in claim 16, further comprising a compressor, coupled to the memory, to receive content and generate the one or more highly compressed content pieces.

25. (Previously Presented) A device as recited in claim 16, wherein the comparator is to determine whether the content matches any of the plurality of highly compressed content pieces in the subset by comparing a first set of feature values associated with each of the plurality of highly compressed content pieces with a second set of feature values associated with the content, and checking whether at least a threshold number of the first set of feature values is within threshold distance of the second set of feature values.

26. (Previously Presented) A device as recited in claim 25, wherein the first set of feature values and the second set of feature values each comprises a set of audio energy features.

27. (Previously Presented) A device as recited in claim 16, wherein the device comprises a portable music player.

28. (Previously Presented) A device as recited in claim 16, wherein each of the one or more highly compressed content pieces further indicates whether a license is required for playback of the corresponding content.

29. (Currently Amended) A method implemented in a device, the method comprising:

~~comparing a portion of media content located in the device to a subset of one or more highly compressed pieces of content located in the device, wherein highly compressed pieces of content are versions of portions of content that are created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality;~~

extracting an energy for each segment of a portion of media content in the device using a predetermined technique, wherein the same predetermined technique was used to generate highly compressed content pieces comprising versions of portions of content created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality;

selecting a group of energy samples of media content of the same size as groups used in generating the highly compressed content pieces;

comparing a portion of media content located in the device to a subset of one or more highly compressed pieces of content located in the device, wherein the comparing comprises comparing a value of the energy in each group of the highly compressed content pieces to the energy of the group selected based on the media content;

determining whether the portion of media content matches any of the subset of highly compressed pieces, the determining comprising identifying a match between that group of the highly compressed content portion and the portion to be played back when the values for the two groups are within a threshold amount;

taking a programmed action [[if]]when the portion of media content matches any of the subset of highly compressed pieces, the programmed action comprising notifying a publisher of the media content of the existence of pirated content; and

playing back the content [[if]]when the determining indicates the portion of media content does not match any of the subset of highly compressed pieces.

30. (Original) A method as recited in claim 29, wherein the portion of media content comprises a song.

31. (Original) A method as recited in claim 29, wherein the portion of media content comprises a video clip.

32. (Original) A method as recited in claim 29, further comprising performing the comparing while the portion of media content is being played.

33. (Original) A method as recited in claim 29, further comprising performing the comparing while the portion of media content is being downloaded from a content source.

34. (Previously presented) A method as recited in claim 29, further comprising receiving the subset of highly compressed pieces from a highly compressed content piece source.

35. (Previously presented) A method as recited in claim 34, further comprising subsequently receiving a new subset of highly compressed pieces from the highly compressed content piece source, and replacing the subset with the new subset.

36. (Previously presented) A method as recited in claim 29, further comprising:

receiving content from a content source;

generating a highly compressed piece based on the received content; and

adding the generated highly compressed piece to the subset of highly compressed pieces.

37. (Currently Amended) A method implemented in a content player, the method comprising:

comparing a portion of media content, the media content comprising audio content, to a subset of one or more highly compressed pieces of content, wherein highly compressed pieces of content are versions of portions of content ~~that are~~ created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality, and wherein the number of pieces included in the subset can vary based on the available memory in the storage device and the storage required for each piece;

determining whether the portion of media content matches any of the subset of highly compressed pieces; and

taking a programmed action [[if]] when the portion of media content matches any of the subset of highly compressed pieces, wherein the programmed action comprises:

checking whether one of a plurality of licenses maintained at [[a]] the content player performing the comparing corresponds to the portion of media content; and

contacting a remote device to perform a more thorough analysis of whether the content matches any of the plurality of highly compressed content pieces.

38. (Previously presented) A method as recited in claim 29, wherein the determining comprises:

comparing a first subset of feature values associated with each of the plurality of highly compressed pieces with a second subset of feature values associated with the portion of media content; and

checking whether at least a threshold number of the first subset of feature values is within threshold distance of the second subset of feature values.

39. (Previously presented) A method as recited in claim 38, wherein the first subset of feature values and the second subset of feature values each comprises a set of audio energy features.

40. (Previously presented) One or more computer-readable memories containing a computer program that is executable by a processor of a device to perform a method comprising:

comparing, at the device, a portion of media content to a subset of one or more highly compressed pieces of content, wherein highly compressed pieces of content are versions of portions of content that are created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality, and wherein the number of pieces included in the subset can vary based on the available memory in the storage device and the storage required for each piece;

determining whether the portion of media content matches any of the subset of highly compressed pieces;

checking, if the portion of media content matches any of the subset of highly compressed pieces, whether a valid license for the media content is present at the device;

contacting a remote device to perform a more thorough analysis of whether the content matches any of the plurality of highly compressed content pieces; and

rendering the media content if the determining indicates the portion of media content does not match any of the subset of highly compressed pieces.

41. **(Currently Amended)** A device comprising:

means for storing a subset of highly compressed content pieces, wherein highly compressed content pieces are versions of portions of content that are created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality, and wherein the number of pieces included in the subset can vary based on the available memory in the storage device and the storage required for each piece;

means for determining, at the device, whether a portion of media content located in the device, the portion of media content having undergone conversion comprising conversion between digital and analog, matches any of the subset of highly compressed content pieces located in the device;

means for taking a particular action if the portion of media content matches any of the subset of highly compressed content pieces, the particular action comprising notifying a publisher of the media content of the existence of pirated content; and

means for playing back the content if the determining indicates the portion of media content does not match any of the subset of highly compressed pieces.

42. (Previously presented) A device as recited in claim 41, further comprising means for receiving an update subset of highly compressed content pieces and replacing the subset of highly compressed content pieces with the update subset of highly compressed content pieces.

43. (Previously presented) A device as recited in claim 41, further comprising means for receiving the subset of highly compressed content pieces.

44. (Previously presented) A device as recited in claim 41, further comprising means for generating the subset of highly compressed content pieces.

45. (Previously Presented) A device as recited in claim 41, wherein the means for storing is further for storing the portion of media content.

46. (Currently Amended) One or more computer storage media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform acts including:

checking, at the computer, whether a portion of media content matches a piece of highly compressed content, wherein a piece of highly compressed content are a version of a portion of content that is created in a manner so that the highly compressed form cannot be decompressed into an intelligible form yet can be compared to uncompressed content for equality, and wherein the piece of highly compressed content cannot be played back to a user in an intelligible form;

allowing the portion of media content to be played back if the portion of media content does not match the piece of highly compressed content; and

taking a particular action if the portion of media content does match the piece of highly compressed content, wherein the particular action comprises obtaining an additional piece of highly compressed content in order to perform a more ~~through~~ thorough analysis of whether the media content matches the piece of highly compressed content and notifying a publisher of the media content of the existence of pirated content.

47. (Previously Presented) One or more computer storage media as recited in claim 46, wherein the portion of media content includes one or more of audio content and video content.

48. (Previously Presented) One or more computer storage media as recited in claim 46, wherein the plurality of instructions further cause the one or more processors to perform acts including receiving the piece of highly compressed content from a highly compressed content source.

49. (Previously Presented) One or more computer storage media as recited in claim 48, wherein the plurality of instructions further cause the one or more processors to perform acts including subsequently receiving a new piece of highly compressed content from the highly compressed content source, and replacing the piece with the new piece.

50. (Previously Presented) One or more computer storage media as recited in claim 46, wherein the plurality of instructions further cause the one or more processors to perform acts including:

receiving content from a content source; and

generating the piece of highly compressed content based on the received content.

51. (Previously Presented) One or more computer storage media as recited in claim 46, wherein the checking comprises:

comparing a first set of feature values associated with the piece of highly compressed content with a second set of feature values associated with the portion of media content; and

checking whether at least a threshold number of the first set of feature values is within threshold distance of the second set of feature values.

52. (Previously Presented) One or more computer storage media as recited in claim 51, wherein the first set of feature values and the second set of feature values each comprises a set of audio energy features.

Claims 53-57. (Canceled).

58. (New) A method as recited in claim 29, wherein the media content comprising the portions of media content has undergone conversion.

59. (New) A method as recited in claim 58, wherein the conversion comprises conversion between digital and analog.